

REMARKS

Entry of the foregoing and further and favorable consideration of the subject application are respectfully requested in light of the remarks which follow.

The Examiner has acknowledged receipt of the Request for Continued Examination (RCE) dated December 24, 2002, and has subsequently entered the Amendment and Reply filed October 28, 2002.

I. EXAMINER INTERVIEW

Applicants thank Examiner Kaushal for the personal interview held on April 23, 2003. The present amendment hereby incorporates the comments and suggestions made during the interview.

Pursuant to 37 C.F.R. § 1.133(b), Applicants herein summarize the substance of the interview. During the interview, Applicants discussed the following objections and rejections with the Examiner: the objection to claims 32, 33, 35, and 36 regarding the term "extracellular domain" of the amino acid of SEQ ID NO: 4; the rejection of claims 14-19 and 26-29 under 35 U.S.C. § 112, first paragraph, regarding the terms "how to use" and "biologically active bone modulating fragments"; and the rejection of claims 30, 31, 35, and 36 under 35 U.S.C. § 112, first paragraph, regarding written description.

II. CLAIM STATUS & AMENDMENTS

Upon entry of the present amendment, claims 1 and 30-36 will be pending in this application.

As stated in the Office Action Summary, claims 1, 14-19, and 26-36 were pending in this application when last examined.

The present amendment hereby cancels claims 14-19 and 26-29 without prejudice of or disclaimer to the canceled subject matter contained therein. Applicants reserve the right to file a continuation on any of the subject matter canceled by way of this amendment. The present amendment also amends claims 30, 32 and 35. The present amendment adds new claims 38 and 39.

Support for the amendments to claims 30 and 35 can be found, at least, in the claims as originally filed. Support for the amendments to claims 32 and 35 can be found in the Specification, at least, at page 12, lines 7-10.

Support for new claims 37 and 38 can be found in the Specification, at least, at page 12, lines 7-10.

In view of the above, no prohibited new matter is believed to have been introduced by these amendments to the claims.

The paragraphs at page 10, line 26 to page 11, line 6, at page 11, lines 6-17, at page 12, lines 13-17, at page 12, lines 22-23, at page 12, lines 24-25, and at page 12, line 26 to page 13, line 1, have been amended to reflect the corrections made to the figures. Support for these amendments can be found, at least, in the Specification at the Brief Description of the Drawings and in the Figures as originally filed.

The paragraph at page 108, line 19 to page 109, line 2 and Table 6 at page 109 have been amended to correct inadvertent typographical errors regarding the ATCC deposit numbers for the two deposited BAC clones. Support for these amendments can be found in

the attached copies of the Deposit receipts, and in Provisional Application Serial No. 60/105,511 at page 78, lines 17-23, to which the instant application claims priority.

Thus, no prohibited new matter is believed to have been introduced by these amendments to the Specification.

Applicants acknowledge the Examiner's indication that claims 1 and 34 are indicated as allowed. Moreover, all of the claims appear to be free of the art since the Examiner has not made any rejections over the art.

III. FORMAL MATTERS

A. Information Disclosure Statements

Applicants acknowledge receipt of the Examiner-initialed copies of the Information Disclosure Statements filed June 8, 2001 and April 25, 2000.

B. Objections to the Drawings

The Drawings stand objected to as allegedly failing to comply with 37 C.F.R. § 1.84. See March 12, 2003 Office Action, form PTO-948. As previously noted above, new, corrected Figures 1-13 have been submitted to correct the deficiencies noted on the form PTO-948, *i.e.*, the Notice of Draftsperson's Patent Drawing Review.

In particular, the quality of the numbers and reference characters in Figures 1 and 2 has been improved and enlarged so that they are clearer and legible. Since this submission obviates the objection, Applicants respectfully request its withdrawal.

IV. OBJECTIONS TO THE CLAIMS

Claims 32, 33, 35, and 36 are objected to because the recitation "extracellular domain of the amino acid of SEQ ID NO: 4" allegedly does not identify the amino acid sequence comprising the extracellular domain. See Official Action, page 11, Item 4. Applicants respectfully traverse this objection.

To expedite prosecution, and not to acquiesce to this objection, the claims have been amended to recite the specific amino acids of the extracellular domain (*i.e.*, amino acids 23-1,385) of SEQ ID NO: 4 as suggested by the Examiner. Since the foregoing amendment renders the objection moot, Applicants respectfully request the withdrawal of this objection. However, Applicants note that the skilled artisan would clearly understand that the extracellular domain is amino acids 23-1,385 of SEQ ID NO: 4 based on the Specification. Applicants direct the Examiner's attention to, at least, page 12, lines 6-10 which discusses this region. Accordingly, Applicants assert that the claim scope has not been altered by the amendment in view of the Specification teachings.

Claim 28 stands objected to, because while the claim reads on a method of treating using the isolated intracellular domain amino acid of SEQ ID NO: 1, this sequence is a nucleic acid sequence, not an amino acid sequence. See Official Action, page 11, Item 5. To expedite prosecution, and not to acquiesce to this objection, this claim has been canceled without prejudice of or disclaimer thereto. Since the foregoing amendment renders the objection moot, Applicants respectfully request the withdrawal of this objection.

**V. REJECTIONS UNDER 35 U.S.C. § 112, FIRST PARAGRAPH,
HOW TO USE & ENABLEMENT**

Claims 14-19 and 26-29 remain rejected under 35 U.S.C. § 112, first paragraph, because the Specification allegedly fails to teach one of skill in the art how to use the claimed invention.

Additionally, claims 30, 31, 35, and 36 stand newly rejected under 35 U.S.C. § 112, first paragraph, because the Specification while being enabled for the isolated amino acid sequence of SEQ ID NO: 4 or its extracellular domain, allegedly does not provide enablement for any biologically active bone modulating fragments. See Official Action, pages 3-9, Items 1 and 2.

Applicants respectfully traverse these rejections. Nonetheless, to expedite prosecution, and not to acquiesce to the rejections, claims 14-19 and 26-29 have been canceled without prejudice of or disclaimer thereto. Likewise, claims 30, 31, 35, and 36 have been amended to remove the phrase "biologically active bone modulating fragments" from the claims as suggested by the Examiner. Since the foregoing amendment renders the rejections moot, Applicants request the withdrawal of these rejections.

VI. REJECTION UNDER 35 U.S.C. § 112, FIRST PARAGRAPH, WRITTEN DESCRIPTION

Claims 30, 31, 35, and 36 stand newly rejected under 35 U.S.C. § 112, first paragraph, as allegedly lacking sufficient written description regarding "biologically active bone modulating fragments." See Official Action, pages 9-11, Item 4.

Applicants respectfully traverse this rejection. Nonetheless, to expedite prosecution, and not to acquiesce to these rejection, claims 30, 31, 35, and 36 have been

amended to remove the phrase "biologically active bone modulating fragments." Since the foregoing amendment renders the rejection moot, Applicants request the withdrawal of this rejection.

CONCLUSION

From the foregoing arguments and amendments, further and favorable action in the form of a Notice of Allowance is respectfully requested and such action is earnestly solicited.

In the event that there are any questions concerning this amendment or the application in general, the Examiner is respectfully requested to telephone the undersigned so that prosecution of the application may be expedited.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

By: 
Jay F. Williams
Registration No. 48,036

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620

Date: June 12, 2003